

VIII. Claims Appendix

1. A computer-implemented method for scheduling tasks, the method comprising:

a) a background task registering at least one registered service, the background task invoked by a kernel of a computer operating system in a dedicated pre-assigned time slice, the computer operating system comprising the background task and a foreground task, the background task being scheduled independent from the operation of the foreground task, the background task for providing an execution presence and a data presence to each of the at least one registered service;

b) the background task ranking the at least one registered service according to requirements of each of the at least one registered service; and

c) the background task allocating the execution presence and the data presence accordingly to each of the at least one registered service such that each of the at least one registered service is given an opportunity to be scheduled in the dedicated pre-assigned time slice.

2. A method as recited in Claim 1 further comprising the step of the background task searching for one or more of the at least one registered service associated therewith.

3. A method as recited in Claim 1 wherein the method is implemented on a portable electronic device.

4. A method as recited in Claim 1 wherein the data presence is an AS-based global variable context.

5. A method as recited in Claim 1 wherein the at least one registered_service is a system-related activity.

6. A method as recited in Claim 1 wherein the at least one registered service is an interrupt-related activity.

7. A method as recited in Claim 1 wherein the at least one registered service is a background-related activity.

8. A method as recited in Claim 1 further comprising the step of periodically repeating the steps a) through c).

9. A method as recited in Claim 2 further comprising the step of periodically repeating the step of the background task searching for at least one service associated therewith.

10. A computer-implemented method for scheduling tasks comprising:
a) a task registering at least one registered service, the task invoked by a kernel of a computer operating system in a dedicated pre-assigned time slice, the task for providing an execution presence and a data presence to the registered service;

b) the task ranking the registered service according to the requirements of the registered service; and

c) the task allocating the execution presence and the data presence accordingly to each of the registered services such that each of the registered services is given an opportunity to be scheduled in the dedicated pre-assigned time slice.

11. A method as recited in Claim 10 further comprising the step of the task searching for at least one registered service associated therewith.

12. A method as recited in Claim 10 wherein the method is implemented on a portable electronic device.

13. A method as recited in Claim 10 wherein the data presence is an AS-based global variable context.

14. A method as recited in Claim 10 further comprising the step of periodically repeating the steps a) through c).

15. A method as recited in Claim 11 further comprising the step of periodically repeating the step of the background task searching for at least one service associated therewith.

16. A computer system comprising:

a processor coupled to a bus;

a memory unit coupled to the bus having stored therein an operating system executed by the processor and a background task executed by the processor; wherein the background task performs a method comprising:

a) registering at least one registered service, the background task invoked by a kernel of a computer operating system in a dedicated pre-assigned time slice, the computer operating system comprising the background task and a foreground task, the background task independent from the operation of the foreground task, the background task for providing an execution presence and a data presence to a registered service;

b) ranking the registered service according to the requirements of the registered service; and

c) allocating the execution presence and the data presence accordingly to each of the registered services such that each of the registered services is given an opportunity to be scheduled in the dedicated pre-assigned time slice.

17. A computer system as recited in Claim 16 wherein the background task further performs the step of searching for the at least one registered service associated with the background task.

18. A computer system as recited in Claim 16 wherein the computer system is a portable electronic device.

19. A computer system as recited in Claim 16 wherein the data presence is an AS-based global variable context.

20. A computer system as recited in Claim 16 wherein the at least one registered service is a system-related activity.

21. A computer system as recited in Claim 16 wherein the at least one registered service is an interrupt-related activity.

22. A computer system as recited in Claim 16 wherein the service is a background-related activity.

23. A computer-implemented method for scheduling tasks, the method comprising:

a) cycling through a set of pre-assigned time slices to schedule a set of tasks comprising a background task and a foreground task, each of the tasks assigned to one of the time slices wherein scheduling of the background task is independent from the scheduling of the foreground task; and

b) scheduling execution of a service manager operating on the background thread wherein the step b) comprises the step of:

b1) the service manager scheduling a set of services that are registered therewith for execution within its time slice, wherein the set of registered services may be dynamically updated; and

b2) the service manager allocating a data presence to each of the set of services registered therewith.

24. A method as recited in Claim 23 wherein the method is implemented on a portable electronic device.

25. A method as recited in Claim 23 wherein the data presence is an AS-based global variable context.

26. A method for scheduling tasks on a computer system that is executing a number of foreground applications, the method comprising:

a) a kernel of an operating system scheduling a plurality of tasks for execution on the computer system within respective time slices, the plurality of tasks being in a static mode and one of the tasks being a service manager;

b) a plurality of applications dynamically registering with the service manager; and

c) the service manager, when itself executing in its time slice, scheduling for execution the plurality of applications based in a priority, wherein applications are scheduled for execution by the service manager in a manner independent from any of the foreground applications.

27. A method as recited in Claim 26 wherein the plurality of applications comprise a system service, an interrupt service and a background service.

28. A method as recited in Claim 26 wherein the computer system is a handheld computer system.

29. A method as recited in Claim 26 wherein the step b) comprises the step of the service manager dynamically registering the plurality of applications based on registration information associated therewith.

IX. Evidence Appendix

None

X. Related Proceeding Appendix

None